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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/973,398	10/09/2001	Mary P. Kusko	POU920010122US1	6096

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06/29/2004

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EXAMINER

TABONE JR, JOHN J

ART UNIT

PAPER NUMBER

2133

DATE MAILED: 06/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/973,398

Applicant(s)

KUSKO ET AL.

Examiner

John J. Tabone, Jr.

Art Unit

2133

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 4/12/04.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 and 9-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 9-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 4/12/04 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

1. The pending claims 1-7 and 9-20 have been examined.

Drawings

2. The proposed corrected drawings were received on 04/12/2004. Figures 2-6 have been corrected to provide suitable descriptive legends for previously unlabeled elements. The objection per paper 4, ¶ 2 is withdrawn.

Specification

3. The amended paragraphs [0030] and [0031] of the specification were entered to correct typographical errors. This has been noted and entered.

Claim Rejections - 35 USC § 112

4. The rejections of claims 1-20 under 35 U.S.C. 112, Second Paragraph, in paper 4, ¶ 4, have been overcome by the Applicant with the current amendment. Examiner withdraws the rejections.

Response to Arguments

5. Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

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The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claim 3 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 3:

This claim recites the limitation "the logic structure for testing". There is insufficient antecedent basis for "the logic structure" in the claim.

Claim Rejections - 35 USC § 102

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-3, 9, 10, 15 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Hashizume et al. (US-5260949), hereinafter Hashizume.

Claim 1 and 15:

Hashizume teaches the testing circuit of module 2a includes shift register latches (SRLs) 4a-4f connected in series to form a scan path (first register), bypass line 114a provided in parallel to the scan path (normal data), MUX 5a (select mechanism) having the inputs connected to the outputs of bypass line 114a (normal data) and SRL 4f (parallel data), and selecting data holding/propagating circuit 9a connected to MUX 5a for specifying which of the outputs of the scan path (parallel data) or bypass line 114a (normal data) is to be selected by MUX 5a. Hashizume also teaches the input of SRL 4a and bypass

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line 114a is connected to SI terminal 6a. Hashizume further teaches module 2b also includes SRLs 4g-4k connected in series to form a scan path (second register). Hashizume discloses in Figure 7 that the output of MUX 5a (select mechanism) is connected to the input of the scan path (source path) formed from SRLs 4g-4k (second register). (Col. 18, lines 9-40; Fig. 7).

Claim 9:

Hashizume teaches MUXes 5a-5e (plurality of select mechanisms) that switch between the corresponding bypass lines 114a-e (normal data) and the output of the corresponding scan paths (parallel data). (Figure 7).

Claim 2, 10, and 16:

Hashizume teaches that module 2a includes SRLs 4a-4f (first register) connected in series to form a scan path and, in a similar manner, module 2b includes SRLs 4g-4k (second register) connected in series to form a scan path. (Col. 18, lines 9, 10 and 17).

Claim 3:

Hashizume teaches selecting data holding/propagating circuit 9a connected to MUX 5a for specifying which of the outputs of the scan path (parallel data) or bypass line 114a (normal data) is to be selected by MUX 5a (source data). (Col. 18, lines 13-16).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 4-7, 11-14, and 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hashizume et al. (US-5260949), hereinafter Hashizume, in view of Motika et al. (US-5983380), hereinafter Motika.

Claims 4, 5, 11, 12, 17, 18:

Hashizume does not explicitly teach a bit-flip mechanism (claims 4, 11, 17) and weight logic (claims 5, 12, 18). However, Hashizume does suggest the present invention is not limited the previously disclosed embodiment. (Col. 19, lines 58-60). Motika discloses a Weighted Random Pattern (WRP) generation function block 144 which incorporates both a bit-flipping (claims 4, 11, 17) and weight function (claims 5, 12, 18) with the WRP. Two XOR gates 148, 150 generate the complement or inversion probability signal as determined by the SRI bit. (See col. 6, lines 12-14). It would have been obvious to one of ordinary skill in the art at the time the invention was made to name Motika's WRP as the combination of the bit-flip logic" and "weight logic". One of ordinary skill in the art would be motivated to so because having Motika's WRP as a combination of the bit-flip logic" and "weight logic" would not affect its function. It also, would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Hashizume's module 2a to include Motika's WRP as a combination of the bit-flip logic" and "weight logic" by inserting the Motika's WRP into the bypass line 114a (parallel data path). The artisan would have been motivated to do so

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because this would enable Hashizume to invert selected data bits of the bypass line 114a (parallel data path) at a controlled frequency of occurrence.

Claims 6, 13, and 19:

Motika teaches in Figure 4 that the Weighted Random Pattern (WRP) generation function block 144 has a multiple input AND gate coupled to the LFSR 12 for receiving random patterns.

Claims 7, 14, and 20:

Motika teaches in Figure 4 of an XOR gate has input from the multiple input AND gate and SRI data (parallel data path).

Conclusion

Applicant's amendment filed 4/12/04 necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will

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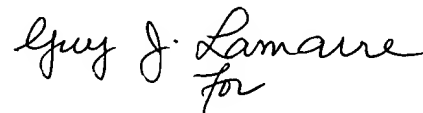
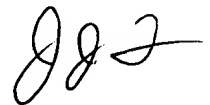
the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John J. Tabone, Jr. whose telephone number is (703) 305-8915. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert DeCady can be reached on (703) 305-9595. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

John J. Tabone, Jr.
Examiner
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Albert DeCady
Primary Examiner